

add 4

The embodiments of the invention in which an exclusive property or privilege is claimed are defined as follows:

1. A binding system for a snowboard comprising:
a first boot engager;
5 a second boot engager; and
a third boot engager, wherein said first and said second engagers are positioned to engage a boot at a first side, and wherein said third engager is positioned to engage the boot at a second side thereof.
- 10 2. A binding system for a snowboard according to Claim 1 wherein said first side is a medial side of the boot and said second side is a lateral side of the boot.
3. A binding system for a snowboard according to Claim 1 wherein at least one of said engagers includes a step-in lock member that locks the boot to the binding system when a user steps into the said at least one engager with the boot.
- 15 4. A binding system for a snowboard according to Claim 3 wherein said step in lock member includes a pivotal member adapted for pivoting between a locked and an unlocked position, wherein when said pivotal member is in the locked position it is adapted to engage a boot, and when it is in the unlocked position, it is adapted to receive or disengage from a boot.
- 20 5. A binding system for a snowboard according to Claim 1 wherein at least one of said engagers comprises a stationary dog member.
6. A binding system for a snowboard according to Claim 5 wherein at least one of said dog members comprises an overhanging portion defining a space thereunderneath.
- 25 7. A binding system for a snowboard according to Claim 5 wherein at least one of said dog members further comprises a substantially spherically shaped convex portion thereon.
8. A binding system for a snowboard according to Claim 5 wherein at least one of said dog members further comprises at least a convex portion thereon that is substantially semi-cylindrically shaped.

9. A binding system for a snowboard according to Claim 5 wherein at least one of said dog members comprises a substantially flat portion.

10. A binding system for a snowboard according to Claim 1 further comprising a boot, said boot including:

- 5 a first engagement member;
a second engagement member; and
a third engagement members, wherein said first, second and third engagement members cooperate with said first, second and third engagers for securing said boot to the binding system.

10 11. A binding system for a snowboard according to Claim 10 wherein said first and second engagement members are positioned on a medial side of said boot and said third engager is positioned on a lateral side of said boot.

12. A binding system for a snowboard according to Claim 11 wherein at least two of said boot engagers comprise stationary dog members, said dog members comprising an overhanging portion defining a space thereunderneath, wherein said dog members further comprise convex portions thereon, and wherein at least two of said engagement members of said boot comprise concave portions adapted for engaging with corresponding ones of said convex portions.

13. A binding system for a snowboard according to Claim 12 wherein said concave and convex portions are substantially spherically shaped.

14. A binding system for a snowboard according to Claim 10 further comprising a structural frame member defined within said boot, wherein said first, second and third engagement members are secured in spatial relation relative to one another by said structural frame member.

15. A binding system for a snowboard according to Claim 14 wherein said structural frame member comprises a first beam portion connecting said first engagement member to said third engagement member, and a second beam portion connecting said second engagement member to said third engagement member.

16. A binding system for a snowboard according to Claim 15 wherein said structural frame member further comprises a third beam portion connecting said first engagement member to said second engagement member.

5 17. A binding system for a snowboard according to Claim 14 wherein said structural frame member comprises a first beam portion connecting two of said engagement members and a second beam portion connecting a third of said engagement members to said first beam portion.

10 18. A binding system according to Claim 10 wherein at least one of said engagers is adapted to cooperate with at least one of said engagement members whether said boot comprises either a right boot or a left boot.

19. A binding system according to Claim 10 wherein one of said engagers is positioned on a lateral side of said binding and said one engager is adapted to receive either a right or a left boot engagement member therein without altering the spatial relation of said one engager with the other two of said engagers.

15 20. A binding system according to Claim 10 wherein at least one of said engagers comprises either a male or a female shape and wherein at least one of said engagement members comprise a counterpart male or female shape to the shape of said at least one of said engager shapes.

20 21. A binding system for a snowboard according to Claim 14 wherein said structural frame member comprises metal.

22. A binding system for a snowboard according to Claim 14 wherein said structural frame member comprises a composite material.

25 23. A binding system for a snowboard according to Claim 1 wherein one of said engagers comprises a member with a channel defined therein, said engager adapted to receive and secure a binding engagement member therein.

24. A binding system for a snowboard according to Claim 23 wherein one of said engagers secures said binding engagement member by trapping said binding engagement member against substantial movement on a top, a bottom and a side portion thereof.

25. A binding system for a snowboard according to Claim 23 wherein one of said engagers secures said binding engagement member by trapping said binding engagement member against substantial movement on a top portion thereof.

5 26. A binding system for a snowboard according to Claim 23 wherein one of said engagers secures said binding engagement member by trapping said binding engagement member against substantial movement on a bottom portion thereof.

27. A binding system for a snowboard according to Claim 23 wherein one of said engagers secures said binding engagement member by trapping said binding engagement member against substantial movement on a side portion thereof.

10 28. A binding system according to claim 1 wherein at least one of said engagers comprises:

a pivotal receiver member adapted to pivot between an open and a closed position, for receiving a portion of a boot therein, said pivotal receiver member having a block engaging portion thereon;

15 a locking member for locking said pivotal member in the closed position, said locking member being biased to move to a position to engage said block engaging portion of said receiver member, for locking said receiver member in the closed position as said receiver moves from the open position to the closed position.

20 29. A binding system according to claim 28 wherein the boot portion that said pivotal receiver member receives therein is a lateral side boot portion.

30. A binding system according to claim 1 wherein a center edge of an engaging surface of said third boot engager is spaced between 2 and 6 inches from a line tangent to edges of engaging surfaces of said first and second boot engagers.

25 31. A binding system according to claim 30 wherein a center outer edge of said third boot engager is spaced 4.242 inches from a line tangent to outer edges of said first and second boot engagers.

32. A binding system according to claim 30 wherein the center outer edge of said third boot engager is between -0.5 inches rearward of and 0.5 inches forward of a center line between centers of said first and second engagers.

33. A binding system according to claim 32 wherein the center edge of said third boot engager is 0.101 inches forward of a center line between centers of said first and second engagers.

5 34. A binding system according to claim 31 wherein a line tangent to an edge of said third boot engager is at an angle relative to the line tangent to said first and second engagers.

35. The binding system according to claim 34 wherein said angle is between 13 and 22 degrees.

10 36. The binding system according to claim 34 wherein said angle is 17 degrees.

37. A binding member for a boot binding comprising:
a pivotal receiver member adapted to pivot between an open and a closed position, for receiving a portion of a boot therein, said pivotal receiver member having a block engaging portion thereon;
15 a locking member for locking said pivotal member in the closed position, said locking member being biased to move to a position to engage said block engaging portion of said receiver member, for locking said receiver member in the closed position as said receiver moves from the open position to the closed position.

20 38. A binding member for a boot binding according to claim 37 further comprising a release member for urging said locking member to a disengaged position relative to said block engaging portion, thereby enabling movement of said pivotal member from the closed position to the open position.

25 39. A binding member for a boot binding according to claim 37 wherein said locking member comprises a lever, wherein said lever is adapted for movement to an open position, thereby unlocking the locking member.

40. A binding member for a boot binding according to claim 37 wherein said locking member comprises a cord, wherein said cord is adapted for movement towards an open position, thereby unlocking the locking member.

30 41. A snowboard boot, said boot comprising:
a first engagement member;

a second engagement member; and

a third engagement members, wherein said first, second and third engagement members are adapted to cooperate with a binding for securing said boot to a snowboard.

5 42. A snowboard boot according to claim 41 wherein said first and second engagement members are positioned on a medial side of said boot and said third engager is positioned on a lateral side of said boot.

10 43. A snowboard boot according to claim 42 wherein at least two of said engagement members of said boot comprise concave portions adapted for engaging with corresponding portions of opposite concavity on a binding.

 44. A snowboard boot according to claim 43 wherein said concave and convex portions are substantially spherically shaped.

15 45. A snowboard boot according to claim 41 further comprising a structural frame member defined within said boot, wherein said first, second and third engagement members are secured in spatial relation relative to one another by said structural frame member.

20 46. A snowboard boot according to claim 45 wherein said structural frame member comprises a first beam portion connecting said first engagement member to said third engagement member, and a second beam portion connecting said second engagement member to said third engagement member.

 47. A snowboard boot according to claim 45 wherein said structural frame member further comprises a third beam portion connecting said first engagement member to said second engagement member.

25 48. A snowboard boot according to claim 45 wherein said structural frame member comprises a first beam portion connecting two of said engagement members and a second beam portion connecting a third of said engagement members to said first beam portion.

30 49. A snowboard boot according to claim 41 wherein a center outer edge of said third boot engagement member is spaced between 2 and 6 inches from a line tangent to outer edges of said first and second engagement members.

50. A snowboard boot according to claim 49 wherein a center outer edge of said third boot engagement member is spaced 4.242 inches from a line tangent to outer edges of said first and second boot engagement members.

51. A snowboard boot according to claim 49 wherein the center outer edge of said third boot engagement member is between -0.5 inches rearward of and 0.5 inches forward of a center line between centers of said first and second engagement members.

52. A snowboard boot according to claim 51 wherein the center outer edge of said third boot engagement member is 0.101 inches forward of a center line between centers of said first and second engagement members.

53. A snowboard boot according to claim 49 wherein a line tangent to an outer edge of said third boot engagement member is at an angle relative to the line tangent to said first and second engagement members.

54. A snowboard boot according to claim 53 wherein said angle is between 13 and 22 degrees.

55. A snowboard boot according to claim 53 wherein said angle is 17 degrees.

56. A snowboard boot according to claim 41 wherein a top portion of at least one of said engagement members is spaced 0.436 inches from a plane parallel to a bottom portion of the boot.

57. A forward lean adjustment system for a boot comprising:
medial and lateral side cable members for urging a highback portion of the boot forwardly along medial and lateral sides thereof; and
a tension adjustment member for altering the length of said cable members, to provide more or less forward lean of the boot relative to a vertical line.

58. A forward lean adjustment system according to claim 57 wherein forward ends of said medial and lateral side cables attach to a forward portion of the boot on a location at one side of the boot.

112 sub 10
boot is
not claimed

102 sub/cable
59. A forward lean adjustment system according to claim 58 wherein said location is on a medial side of the boot.

60. A forward lean adjustment system according to claim 57 wherein said tension adjustment member comprises ¹²⁰an engaging arm pivotally attached to a rear portion of the boot.

61. A forward lean adjustment system according to claim 60 wherein said arm includes ^{128, 130}plural engaging members for selective engagement of said cables to lengthen or shorten the effective length of the cables.

62. A forward lean adjustment system according to claim 60 wherein said plural engaging members comprise slots and wherein said cables carry keeper members adapted to fit in ones of said slots.

63. A forward lean adjustment system according to claim 60 wherein said tension arm comprises an adjustable threaded member connected to said cables, wherein adjustment of said threaded member alters the effective length of said cables for altering the forward lean of the boot.

64. A forward lean adjustment system according to claim 63 wherein said adjustable threaded member is in threaded engagement with a pulley and adjustment of said threaded member alters the position of said pulley, said pulley receiving said cables thereon, thereby altering the effective length of said cables.

20 65. A forward lean adjustment system for a boot comprising:
medial and lateral side cable members for urging a highback portion of the boot forwardly along medial and lateral sides thereof, wherein said medial and lateral side cable members attach to a front portion of the boot at a region thereon.

25 66. A forward lean adjustment system for a boot according to claim 65 wherein said region comprises first and second locations that are within 2 inches of each other.

67. A forward lean adjustment system for a boot according to claim 65 wherein said region comprises first and second locations that are within 1 inches of each other.

112
S/C
68. A forward lean adjustment system for a boot according to claim 65 wherein said region comprises first and second locations that are substantially adjacent each other.

5
69. A forward lean adjustment system for a boot according to claim 65 wherein said region comprises a substantially single position.

W/D
70. A forward lean adjustment system for a boot according to claim 69 wherein said single position comprises a pulley member attached to a front portion of the boot.

Fig 31 (the boot)
W/D
71. A forward lean adjustment system for a boot according to claim 70 further comprising means for adjusting the relative position of said pulley member on the front portion of the boot.

12 means
72. A forward lean adjustment system for a boot according to claim 65 (wherein said medial and lateral side cable members comprise portions of a continuous cable and wherein said cable loops back from the medial side to the lateral side of the boot around a loop back member at a front portion of the boot.

73. A forward lean adjustment system for a boot according to claim 65, further comprising means for altering the location of said single position on the front of said boot.

W
20 74. A snowboard boot comprising:
a shell member defining at least a portion of the snowboard boot; and
an ankle strap adapted to substantially surround and secure a wearer's ankle region, wherein said ankle strap is secured to said shell member of the snowboard boot.

25 75. A snowboard boot according to claim 74 wherein said ankle strap further comprises a lace receiving portion for receiving a lace of the boot therethrough, for further securing said ankle strap to the snowboard boot.

Add B17